



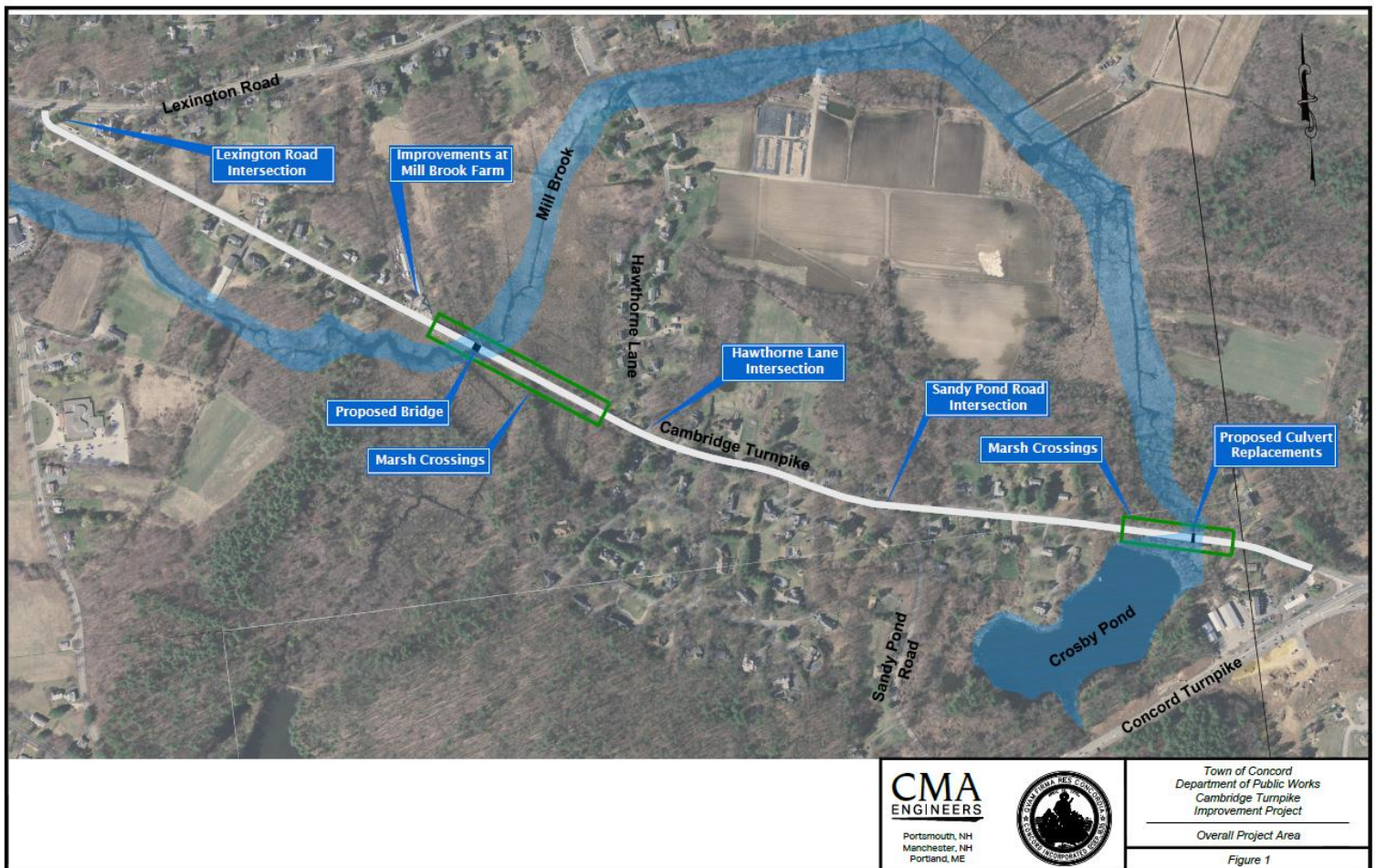
Town of Concord, MA

Concord Public Works (CPW)

Cambridge Turnpike Improvement Project (CTIP)

September 2019 Construction Update

The Town of Concord, Concord Public Works (CPW), and the Public Works Commission (PWC) continue to move forward with the implementation of the Cambridge Turnpike Improvement Project (CTIP). This project includes comprehensive improvements to address roadway deterioration from Lexington Road to Routes 2 and 2A (Crosby's Corner). The overall project location plan is presented below.



As described in previous project updates, the primary focus of this project is to resolve chronic flooding of the roadway at the eastern and western ends of the corridor, while integrating multi-modal uses of the corridor, including vehicles, pedestrians, and cyclists. The goal is to complement the community's character while being sensitive to environmental and historical resources.

Due to the complexity of this project, construction will encompass multiple construction seasons beginning in the spring of 2018 and extending through 2020.

Since the last update, important steps have been achieved, and the project is under construction in both Phase 1 and Phase 2. Several important milestones have been reached including:

UTILITIES

- The water main on Cambridge Turnpike between Lexington Road and the Mill Brook Farm Stand has been replaced along with the water main on Sandy Pond Road.
- Sandy Pond Road is scheduled to be paved with a 1 ½" edge to edge temporary overlay over the next several weeks.
- The replacement water main from the Mill Brook Farm Stand to Hawthorne Lane is currently being installed and will be complete by early October 2019.

Figure 1 Waterline installation near Mill Brook Farm



- The storm drainage system on Cambridge Turnpike between Lexington Road and the Mill Brook Farm Stand has been replaced.
- The storm drainage system on Cambridge Turnpike has been replaced on the South side between Hawthorne Lane and Sandy Pond Road. The drain system on the North side will be replaced as soon as the new high pressure gas main on the south side is completed and the old high pressure gas main on the north side is decommissioned.

Estimated time frame for completion of the installation of the high pressure gas main is October 2019.

- Utility work which includes electric, gas and drainage between the Mill Brook Farm Stand and Hawthorne Lane is to be completed by the first week of November 2019.
- Installation of new underground utility duct bank between Lexington Road and the Mill Brook Farm Stand is scheduled to be completed by the end of September 2019.

Figure 2 Underground Utility Installation



DEEP GROUND IMPROVEMENTS

Deep ground improvements have begun on Cambridge Turnpike Improvement Project, which are required because sections of the roadway were built across marshy wetlands with subsurface conditions of deep layers of loose fibrous peat and low strength silts. Since its original construction, the roadway has been settling and experiencing chronic flooding, requiring road closure. To mitigate the flooding, the roadway will be raised up to 3'. To support the existing road and this added fill in this area, 833 GeoConcrete Column rigid inclusions will be drilled up to a depth of 70'. To distribute the load between the concrete columns and roadway pavement, the contractor augers down the concrete columns 4' and rebuilds the tops with compacted stone as a Rammed Aggregate.



Figure 3 Deep Ground Improvements



BRIDGE CONSTRUCTION

- Bridge construction at the Mill Brook crossing has commenced with completion estimated to be in mid-November 2019.
- Replacement of the drainage culverts by Crosby Pond along with deep ground improvements in that area (Phase 2, section 4) are scheduled for construction start-up in April 2020 with completion in August 2020.

Figure 3 Bridge Construction at Mill Brook Crossing



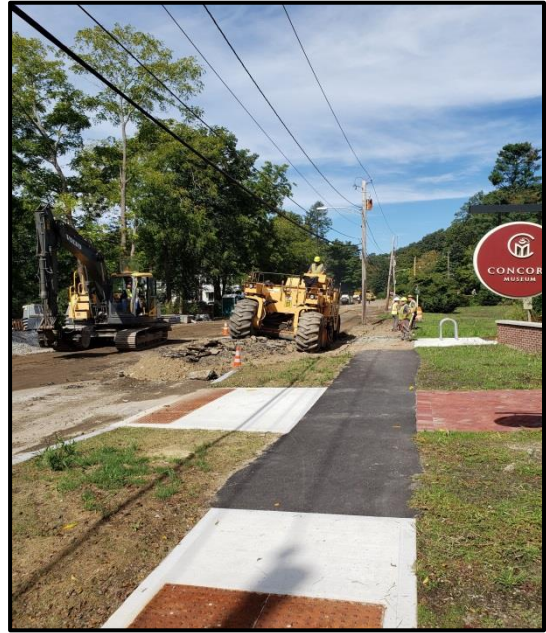
ROAD WORK

- Current construction schedules indicate that paving of the reconstructed areas in Phase 1 (section 1 & 3) will be complete by the end of November 2019 with the area from Lexington Road to the Mill Brook Farm Stand receiving binder course paving in late Oct. early Nov. followed by the section between Hawthorne Lane to east of Sandy Pond Road.
- The access to Cambridge Turnpike from Lexington Road is being realigned to create a safer controlled entrance and exit for vehicular and pedestrian traffic.
- In Phase 2 (section 2), paving is scheduled to be completed by the end of November 2019 from the new bridge crossing to Hawthorne Lane. The area from east of Sandy Pond Road to Rte 2A will be completed by August 2020.
- Retaining wall construction from the Mill Brook Farm Stand to Hawthorne Lane, both North and South sides of the Cambridge Turnpike, is currently under construction and will be complete by the middle of November 2019.
- It is anticipated that due to the amount of work involved with the final completion of the many items of construction, which cannot be accomplished in the colder months of the year, the project will have a winter shutdown period from mid-December 2019 to March of 2020.



Figure 4 Retaining Wall Foundation Mill Brook Farm Stand to Hawthorne Lane

Figure 5 Roadway Reclamation



Construction Planned for 2019-2020

Two separate construction contracts have been engaged due to the unique requirements of each phase of construction. The following highlights the scope of work and anticipated schedule and timeframes for each phase of the work.

As shown on the diagram on Page 8 construction is planned as follows:

2018/19 Phase I Contract – Conventional Roadway Reconstruction:

- The Phase 1 contract focus is on conventional roadway and utilities construction between Lexington Road and the Mill Brook Farm (See Section 1 on Diagram) and from Hawthorne Lane to Sandy Pond Road (See Section 3 on Diagram). In addition to roadway and sidewalk reconstruction, the Phase I contract also includes replacement of Town owned drainage and water systems, the reconstruction of the electric utility along with the reconstruction of the private communications utilities. Please note the overhead utilities will be buried in Section 1 of the project.
- The Phase I construction commenced in August 2018 with a substantial completion date of November 2019 and a final completion date anticipated to be Spring 2020.

2019/20 Phase II Marsh Crossings, Bridge, and Culverts:

- The Phase II contract, which was issued a notice to proceed in February 2019, focuses on the two Marsh Crossing areas (Sections 2 and 4 on the diagram) and include the installation of deep ground improvements to support the roadway, installation of new retaining walls to minimize wetland filling and elevating the travel way out of the flood

plain. The work also replaces a failing culvert system in Section 2 with a new 40' span bridge and replaces two failing metal culverts in Section 4 with new concrete box culverts along with reconstructed utilities within the area.

- The Phase II contract has a completion date in 2020. The Town is utilizing road closures for the Phase II contract's construction. Residents on Cambridge Turnpike are being provided with access to their homes during all phases of construction.

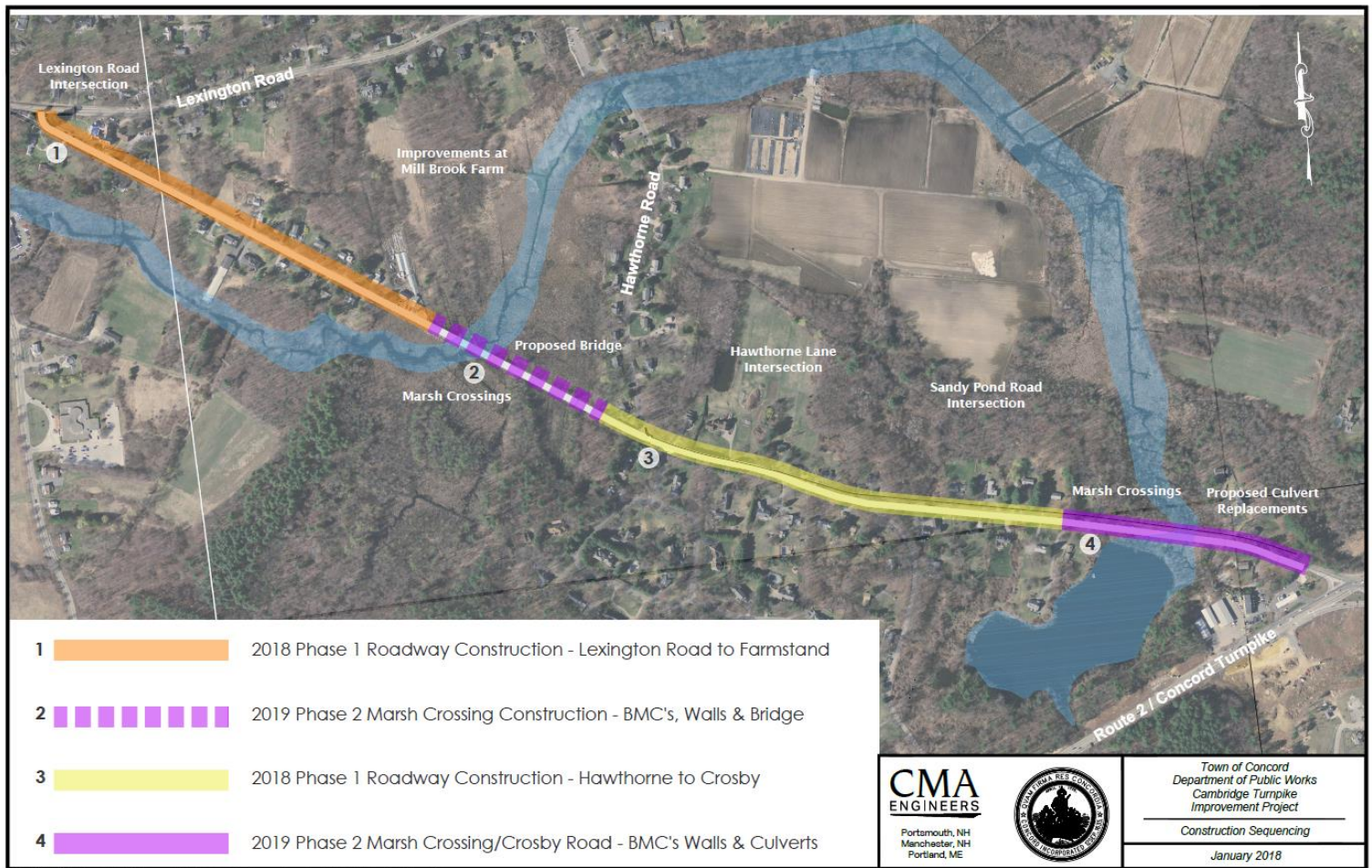
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| Businesses Open During Construction: |
| All businesses within the construction area are open for business, which include the Mill Brook Farm Stand, the Concord Museum and the Emerson House. Access is being provided to patrons, residents and their guests. |



Emerson House



Concord Museum



Communication and Coordination

Communication to affected parties and abutters will continue throughout construction. Updates will be posted on the Town's website at "Concordma.gov". Additionally updates will be provided via email. If you would like to be included in our email distribution list, or if you have any comments or questions please contact Concord Public Works at CTIPcomments@Concordma.gov or by phone at 978-318-3206